

# Work Order ID 56447

February 24, 2010 7:52:19 AM

Page 1

Item ID: D412-630-031 **CHG002**

Accept

Revision ID:

Item Name: Pilot/Co-Pilot Step, LH (Folding)

Start Date: 24/02/2010 Start Qty: 1.00

Required Date: 03/03/2010 Req'd Qty: 1.00

Reference: Return 2009 / RA109003

Cust Item ID:

Customer:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: 7 Date: 10-02-24 SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \_\_\_\_\_  
Stop \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
IIN D412-630	Rev M

100 QC5- Inspect part completeness to step on W/O 0.00



QC

Quality Control

Memo

Original B41777 @ CHG002  
Part is in good condition.

0.00

*5 wk/24*

<b>DART</b> Dart Aerospace Ltd. 1270 ABERDEEN ST HAWKESBURY ON CANADA K6A 1K7		TEL APHM JVAL # 09-89 TEL 1-6 3-632-5200	
P.N	D412-630-031	CHG	CHG002
DESC	Folding Step, LH	STC	SH96-69
LOT	B41777	STC	SR00598NY
MODEL	Bell 205/212/214/412	STC	SR00595/7NY
MADE IN CANADA			

110 Wing Walk as per dwg QSI005 4.4 Batch *1112/162* 0.00



HandFinish

Hand Finishing

Memo

Clean & touch up step with Imron White per QSI005.

Clean & re-wing walk as necessary per drawing & QSI005

0.00

*10-3-17*

120 QC3- Inspect Part Finish 0.00



QC

Quality Control

Memo

0.00

*10/3/12*

*A112*

*1x*

*Assembly*

# Work Order ID 56447

February 24, 2010 7:52:19 AM

Page 2

Item ID: D412-630-031

Accept

Setup Start

Revision ID:

Stop

Item Name: Pilot/Co-Pilot Step, LH (Folding)

Start Date: 24/02/2010 Start Qty: 1.00

Cust Item ID:

Required Date: 03/03/2010 Req'd Qty: 1.00

Customer:

Reference: Return 2009 / RA109003

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

0.00



Small Fab

Memo

0.00

Small Fab

-Remove lockwire.  
-Pick new:  
2x AN4CH3  
2x D3443-9  
-Adjust tension to 11 lbs per drawing.  
-Install new lockwire.

EP 10/03/18 (1)

140

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

Sidolosh

(HLLM)

150

Pick Kit

0.00



Packaging

Memo

0.00

Packaging

-Pick new kit  
-New paperwork & labels are required at CHG002 (not 3).

Sidolosh

for CL 10/03/22

CL 10/03/22 (1)

**Work Order ID 56447**

February 24, 2010 7:52:19 AM

Page 3

Item ID: D412-630-031

Accept

Setup Start

Revision ID:

Stop

Item Name: Pilot/Co-Pilot Step, LH (Folding)

Start Date: 24/02/2010 Start Qty: 1.00

Cust Item ID:

Required Date: 03/03/2010 Req'd Qty: 1.00

Customer:




Reference: Return 2009 / RA109003

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160  QC Quality Control	QC4- 100% Inspect kits for completeness  Memo Check off all that is not applicable.	0.00  0.00	8.64/09			(70)			
170  Packaging Packaging	Identify as per dwg & Stock Location: _____  Memo MVC	0.00  0.00	12/14/14						
180  QC Quality Control	QC21- Final Inspection - Work Order Release  Memo	0.00  0.00	10/04/15						

MF  
10-4-14

# Picklist Print

February 24, 2010 7:52:19 AM

Page 1 / 13

Work Order ID: 56447

Parent Item: D412-630-031

Parent Item Name: Pilot/Co-Pilot Step, LH (Folding)



Start Date: 24/02/2010

Required Date: 03/03/2010

Comments: IPP REV. A 05.11.21 NEW ISSUE EC  
IPP REV. B 05.12.19 updated pick list EC  
IPP REV. C 07.11.12 ecn 1019,no chg EC verified by DD

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/	Replacement	Mfg/	Bin	Primary	Last	Route	Unit of	Qty on	Remaining	Qty	Date	Status
AN310-4	Purchased		No			130	Each	54.0000	1.0000			
												
NUT											10-3-22/8	



Warehouse Loc Qty Loc Code  
Location

Main Warehouse

ST 54

112969 9

113845 45



AN310-5	Purchased		No			130	Each	50.0000	2.0000			
												
NUT											10-3-24/5	

Warehouse Loc Qty Loc Code  
Location

Main Warehouse

ST 50

113845 50

AN3CSA	Purchased		No			130	Each	465.0000	3.0000			
												
Bolt											10-3-24/5	

Warehouse Loc Qty Loc Code  
Location

Main Warehouse

ST 465

111424 8

111707 69

112314 1

113121 125

113149 262

# Picklist Print

February 24, 2010 7:52:19 AM

Page 2 / 13

Work Order ID: 56447

Parent Item: D412-630-031

Parent Item Name: Pilot/Co-Pilot Step, LH (Folding)


Start Date: 24/02/2010

Required Date: 03/03/2010


Comments: IPP REV. A 05.11.21 NEW ISSUE EC  
 IPP REV. B 05.12.19 updated pick list EC  
 IPP REV. C 07.11.12 ecn 1019,no chg EC verified by DD

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/	Replacement	Mfg/	Bin	Primary	Last	Route	Unit of	Qty on	Remaining	Qty	Date	Status
AN44-C12		Purchased	No			130	Each	18.0000	1.0000			
											10-3-22	sp
eyebolt												

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	18	
111888	18	

AN4C15	Purchased	No				130	Each	32.0000	1.0000			
											10-3-24	sp
BOLT												

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	32	
113618	12	
113908	20	

# Picklist Print

February 24, 2010 7:52:19 AM

Page 3 / 13

Work Order ID: 56447

Parent Item: D412-630-031

Parent Item Name: Pilot/Co-Pilot Step, LH (Folding)


Start Date: 24/02/2010

Required Date: 03/03/2010

Comments: IPP REV. A 05.11.21 NEW ISSUE EC  
IPP REV. B 05.12.19 updated pick list EC  
IPP REV. C 07.11.12 ecn 1019,no chg EC verified by DD


Start Qty: 1.00

Required Qty: 1.00


Component Item ID/	Replacement	Mfg/	Bin	Primary	Last	Route	Unit of	Qty on	Remaining	Qty	Date	Status
AN5C11		Purchased	No			130	Each	38.0000	1.0000			
											10-3-24	sl
BOLT												

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	26	
111279	14	
113422	12	

Main Warehouse		
ST337	12	
113950	12	

AN5C15	Purchased	No				130	Each	17.0000	1.0000			
											10-3-24	sl
BOLT												

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	17	
10121	2	
110552	15	

AN960C10	Purchased	No				130	Each	0.0000	7.0000			
											11/13/22	10/13/23
WASHER												

# Picklist Print

February 24, 2010 7:52:19 AM

Page 4 / 13

Work Order ID: 56447



Parent Item: D412-630-031



Parent Item Name: Pilot/Co-Pilot Step, LH (Folding)

Start Date: 24/02/2010

Required Date: 03/03/2010

Comments: IPP REV. A 05.11.21 NEW ISSUE EC  
 IPP REV. B 05.12.19 updated pick list EC  
 IPP REV. C 07.11.12 ecn 1019,no chg EC verified by DD

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/	Replacement	Mfg/	Bin	Primary	Last	Route	Unit of	Qty on	Remaining	Qty	Date	Status
	Purchased		No			130	Each	208.0000	1.0000			
WASHER										10-3-22 SP		

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	208	
102842	108	
112532	100	

D3454-1	Manufactured	No				130	Each	17.0000	1.0000			
										10-3-22 SP		
Bushing												

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	17	
44588	2	
53745	15	

D3454-3	Manufactured	No				130	Each	12.0000	2.0000			
										10-3-22 SP		
Bushing												

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	12	
48125	12	

# Picklist Print

February 24, 2010 7:52:19 AM

Page 5 / 13

Work Order ID: 56447



Parent Item: D412-630-031



Parent Item Name: Pilot/Co-Pilot Step, LH (Folding)

Start Date: 24/02/2010

Required Date: 03/03/2010

Comments: IPP REV. A 05.11.21 NEW ISSUE EC  
IPP REV. B 05.12.19 updated pick list EC  
IPP REV. C 07.11.12 ecn 1019,no chg EC verified by DD

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/	Replacement	Mfg/	Bin	Primary	Last	Route	Unit of	Qty on	Remaining	Qty	Date	Status
D3454-5		Manufactured	No			130	Each	42.0000	2.0000			
Bushing												

10-3-22 SF

## Warehouse Location

### Location

Main Warehouse

ST

2

53697

2

Main Warehouse

ST58

40

56046

40

Manufactured No

130

Each

47.0000

4.0000

2

10-3-22 SF

## Warehouse Location

### Location

Main Warehouse

ST

3

46138

3

Main Warehouse

ST58

44

55606

4

55807

40

4



# Picklist Print

February 24, 2010 7:52:19 AM

Page 6/13

Work Order ID: 56447



Parent Item: D412-630-031



Parent Item Name: Pilot/Co-Pilot Step, LH (Folding)

Start Date: 24/02/2010

Required Date: 03/03/2010

Comments: IPP REV. A 05.11.21 NEW ISSUE EC  
 IPP REV. B 05.12.19 updated pick list EC  
 IPP REV. C 07.11.12 ecn 1019,no chg EC verified by DD

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/	Replacement	Mfg/	Bin	Primary	Last	Route	Unit of	Qty on	Remaining	Qty	Date	Status
D3455-1 		Manufactured	No			130	Each	41.0000	2.0000			
Spacer											10-3-2010	

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	41	
48126	9	
56047	32	

D3462-041 	Manufactured	No				130	Each	2.0000	1.0000			
Bracket Assembly												

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	2	
55817	2	

B 56063  
 14  
 12/4/9

# Picklist Print

February 24, 2010 7:52:19 AM

Page 7/13

Work Order ID: 56447



Parent Item: D412-630-031



Parent Item Name: Pilot/Co-Pilot Step, LH (Folding)

Start Date: 24/02/2010

Required Date: 03/03/2010

Comments: IPP REV. A 05.11.21 NEW ISSUE EC  
IPP REV. B 05.12.19 updated pick list EC  
IPP REV. C 07.11.12 ecn 1019,no chg EC verified by DD

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/	Replacement	Mfg/	Bin	Primary	Last	Route	Unit of	Qty on	Remaining	Qty	Date	Status
MS21043-3	Purchased		No			130	Each	4,252.000	3.0000			



Nut



10-3-22 SP

Warehouse	Loc Qty	Loc Code
Location		

OFFSHORE

FG 80

103691 80

Main Warehouse

ST 4172

111819 70

112243 29

112314 4073

MS24665-2278



COTTER PIN

Purchased No

130 Each

113.0000 2.0000



3

10-3-22 SP

Warehouse	Loc Qty	Loc Code
Location		

Main Warehouse

ST 113

111359 1

113422 12

113845 100

# Picklist Print

February 24, 2010 7:52:19 AM

Page 8 / 13

Work Order ID: 56447

Parent Item: D412-630-031

Parent Item Name: Pilot/Co-Pilot Step, LH (Folding)

Start Date: 24/02/2010

Required Date: 03/03/2010

Comments: IPP REV. A 05.11.21 NEW ISSUE EC  
IPP REV. B 05.12.19 updated pick list EC  
IPP REV. C 07.11.12 ecn 1019,no chg EC verified by DD

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/	Replacement	Mfg/	Bin	Primary	Last	Route	Unit of	Qty on	Remaining	Qty	Date	Status
MS24685-229		Purchased	No			130	Each	226.0000	2.0000	J		
											10-3-22 S	
COTTER PIN												

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	226	
111041	226	

Purchased	No	130	Each	276.0000	1.0000	
-----------	----	-----	------	----------	--------	--

Warehouse	Loc Qty	Loc Code
Location		
OFFSHORE		
FG	44	
103286	17	
103691	27	
Main Warehouse		
ST	232	
109430	232	

Washer						
--------	--	--	--	--	--	--

# Picklist Print

February 24, 2010 7:52:19 AM

Page 9 / 13

Work Order ID: 56447



Parent Item: D412-630-031



Parent Item Name: Pilot/Co-Pilot Step, LH (Folding)

Start Date: 24/02/2010

Required Date: 03/03/2010

Comments: IPP REV. A 05.11.21 NEW ISSUE EC  
 IPP REV. B 05.12.19 updated pick list EC  
 IPP REV. C 07.11.12 ecn 1019,no chg EC verified by DD

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/	Replacement	Mfg/	Bin	Primary	Last	Route	Unit of	Qty on	Remaining	Qty	Date	Status
D3443-043		Manufactured	No			110	Each	4.0000	1.0000			
Strut Weldment Assembly												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST198A	4	
55611	4	



D3443-041

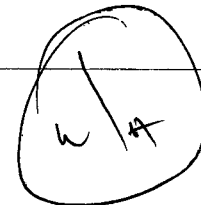


Strut Weldment Assembly

Manufactured No

110 Each 5.0000 1.0000

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
st196a	5	
55810	5	



# Picklist Print

February 24, 2010 7:52:19 AM

Page 10 / 13

Work Order ID: 56447

Parent Item: D412-630-031

Parent Item Name: Pilot/Co-Pilot Step, LH (Folding)


Comments: IPP REV. A 05.11.21 NEW ISSUE EC  
IPP REV. B 05.12.19 updated pick list EC  
IPP REV. C 07.11.12 ecn 1019,no chg EC verified by DD

Start Date: 24/02/2010

Required Date: 03/03/2010

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/	Replacement	Mfg/	Bin	Primary	Last	Route	Unit of	Qty on	Remaining	Qty	Date	Status
		Manufactured	No			110	Each	20.0000	2.0000		25/03/18	
Pin												

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

2

53502

2

Main Warehouse

ST56

18

55812

6

56298

12

2

D3454-7

Manufactured No

110

Each

32.0000

2.0000



Bushing

10-3-2010

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

2

46132

2

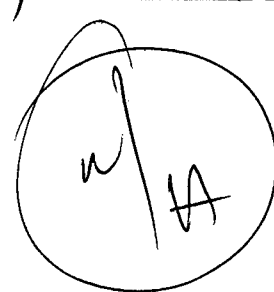
Main Warehouse

ST58

30

55608

30



# Picklist Print

February 24, 2010 7:52:19 AM

Page 11 / 13

Work Order ID: 56447

Parent Item: D412-630-031

Parent Item Name: Pilot/Co-Pilot Step, LH (Folding)


Start Date: 24/02/2010

Required Date: 03/03/2010

Comments: IPP REV. A 05.11.21 NEW ISSUE EC  
IPP REV. B 05.12.19 updated pick list EC  
IPP REV. C 07.11.12 ecn 1019,no chg EC verified by DD

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/	Replacement	Mfg/	Bin	Primary	Last	Route	Unit of	Qty on	Remaining	Qty	Date	Status
D3455-1		Manufactured	No			110	Each	47.0000	2.0000			
												
Spacer												

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

3

46138

3

Main Warehouse

ST58

44

55606

4

55807

40

Manufactured No

110

Each

53.0000

1.0000

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

53

41692

1

46134

52

D3465-1  
  
Washer

# Picklist Print

February 24, 2010 7:52:19 AM

Page 12/13

Work Order ID: 56447

Parent Item: D412-630-031

Parent Item Name: Pilot/Co-Pilot Step, LH (Folding)

Start Date: 24/02/2010

Required Date: 03/03/2010

Comments: IPP REV. A 05.11.21 NEW ISSUE EC  
IPP REV. B 05.12.19 updated pick list EC  
IPP REV. C 07.11.12 ecn 1019,no chg EC verified by DD

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/	Replacement	Mfg/	Bin	Primary	Last	Route	Unit of	Qty on	Remaining	Qty	Date	Status
AN4CH3	Purchased		No			110	Each	11.0000	2.0000			



SS Bolt

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

11

111978

11

AN4C14

Purchased

No

110

Each

27.0000

1.0000



BOLT

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

27

110552

7

113899

20

AN310-4

Purchased

No

110

Each

54.0000

1.0000



NUT

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

54

112969

9

113845

45

EP 10/03/18

2  
N/A

N/A

# Picklist Print

February 24, 2010 7:52:19 AM

Page 13 / 13

Work Order ID: 56447

Parent Item: D412-630-031

Parent Item Name: Pilot/Co-Pilot Step, LH (Folding)

Start Date: 24/02/2010

Required Date: 03/03/2010

Comments: IPP REV. A 05.11.21 NEW ISSUE EC  
 IPP REV. B 05.12.19 updated pick list EC  
 IPP REV. C 07.11.12 ecn 1019,no chg EC verified by DD

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/	Replacement	Mfg/	Bin	Primary	Last	Route	Unit of	Qty on	Remaining	Qty	Date	Status
AN310-7		Purchased	No			110	Each	23.0000	1.0000			
NUT												

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	23	
103286	3	
111916	20	

MS24665-22



COTTER PIN

Purchased No

110 Each 113.0000 1.0000

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	113	
111359	1	
113422	12	
113845	100	

MS24665-302



Cotter Pin

Purchased No

110 Each 106.0000 1.0000

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	106	
111359	6	
113644	100	

N/A

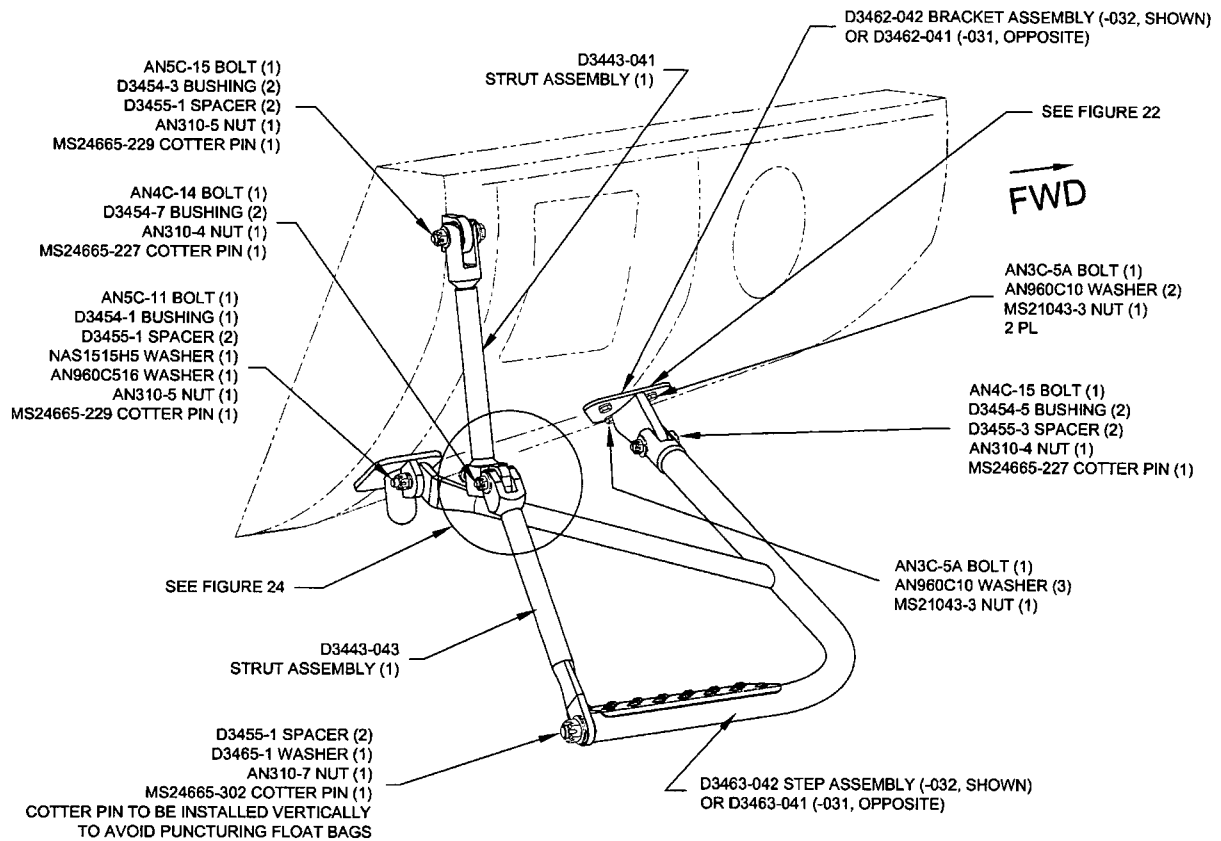
N/A

10-3-22  
Emylee SP

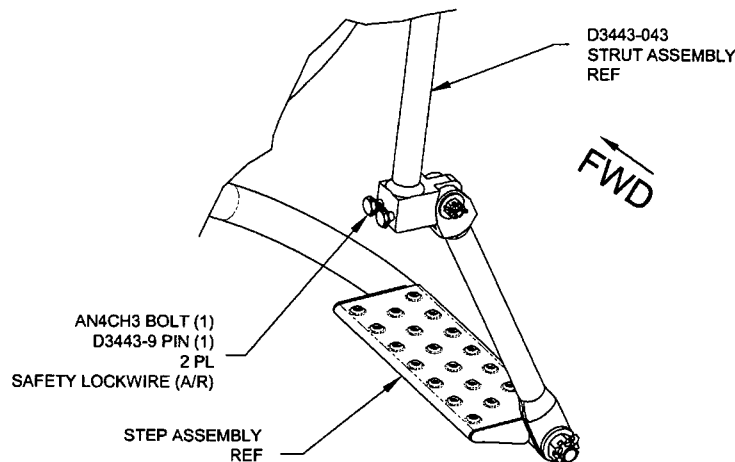


Qty -031	Qty -032	Part Number	Description
X		D412-630-031	PILOT/CO-PILOT STEP, LH (FOLDING)
	X	D412-630-032	PILOT/CO-PILOT STEP, RH (FOLDING)
1	1	D3443-041	STRUT ASSEMBLY
1	1	D3443-043	STRUT ASSEMBLY
2	2	D3443-9	PIN
1	1	D3454-1	BUSHING
2	2	D3454-3	BUSHING
2	2	D3454-5	BUSHING
2	2	D3454-7	BUSHING
6	6	D3455-1	SPACER
2	2	D3455-3	SPACER
1		D3462-041	BRACKET ASSEMBLY
	1	D3462-042	BRACKET ASSEMBLY
1		D3463-041	STEP ASSEMBLY
	1	D3463-042	STEP ASSEMBLY
1	1	D3465-1	WASHER
2	2	AN310-4	NUT
2	2	AN310-5	NUT
1	1	AN310-7	NUT
3	3	AN3C-5A	BOLT
1	1	AN44-C12	* EYEBOLT
1	1	AN4C14	BOLT
1	1	AN4C15	BOLT
2	2	AN4CH3	BOLT
1	1	AN5C11	BOLT
1	1	AN5C15	BOLT
7	7	AN960C10	WASHER
1	1	AN960C516	WASHER
3	3	MS21043-3	NUT
2	2	MS24665-227	COTTER PIN
2	2	MS24665-229	COTTER PIN
1	1	MS24665-302	COTTER PIN
1	1	NAS1515H5	WASHER

\* USE AN44-C12 EYEBOLT WHEN D412-630-031/-032 IS INSTALLED IN CONJUNCTION WITH D412-630-023/-024/-033/-034™ HELI-ACCESS-STEP



**FIGURE 23 – Isometric View D412-630-032 RH, Pilot/Co-Pilot Folding-Step Installation (Shown)  
D412-630-031 LH (Opposite)**



**FIGURE 24 – Detail Safety Wiring, D412-630-032 RH, Pilot/Co-Pilot Folding-Step Installation (Shown)  
D412-630-031 LH (Opposite)**

• COPYRIGHT © 1996 BY DART AEROSPACE LTD. •  
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED  
OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

Revision: **M**  
Date: 08.12.12

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries